

$$v_1 = \frac{1}{\sqrt{2}} \begin{pmatrix} 1 \\ i \end{pmatrix}, v_2 = \frac{1}{\sqrt{2}} \begin{pmatrix} 1 \\ -i \end{pmatrix}, v_3 = \frac{1}{\sqrt{2}} \begin{pmatrix} 1 \\ 0 \end{pmatrix}, v_4 = \frac{1}{\sqrt{2}} \begin{pmatrix} 1 \\ 0 \end{pmatrix}, v_5 = \frac{1}{\sqrt{2}} \begin{pmatrix} 1 \\ 0 \end{pmatrix}, v_6 = \frac{1}{\sqrt{2}} \begin{pmatrix} 1 \\ 0 \end{pmatrix}, v_7 = \frac{1}{\sqrt{2}} \begin{pmatrix} 1 \\ 0 \end{pmatrix}, v_8 = \frac{1}{\sqrt{2}} \begin{pmatrix} 1 \\ 0 \end{pmatrix}, v_9 = \frac{1}{\sqrt{2}} \begin{pmatrix} 1 \\ 0 \end{pmatrix}, v_{10} = \frac{1}{\sqrt{2}} \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$

Abstract of Disclosure

An electric machine made from kinetically sprayed permanent magnet material and a binder material form a composite admixture having microstructure of permanent magnet material embedded in the binder material. The admixture has a permanent magnetic moment. The magnets of the present invention may be integrally formed atop carriers to form electrical machines such as motors, generators, alternators, solenoids, and actuators. The manufacturing techniques used in this invention may produce highly defined articles that do not require additional shaping or attaching steps. Very high-purity permanent and soft magnetic materials, and conductors with low oxidation are produced.

